Certification Regarding Drug-Free Workplace Requirements
Grantees Who Are Individuals

This certification is required by the regulations implementing the Drug-Free Workplace Act of 1988, 34 CFR Part 85, Subpart F. The regulations, published in the January 31, 1989 Federal Register, require certification by grantees, prior to award, that their conduct of grant activity will be drug-free. The certification set out below is a material representation of fact upon which reliance will be placed when the agency determines to award the grant. False certification or violation of the certification shall be grounds for suspension of payments, suspension or termination of grants, or governmentwide suspension or debarment (see 34 CFR Part 85, Sections 85.615 and 85.620).

The grantee certifies that, as a condition of the grant, he or she will not engage in the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance in conducting any activity with the grant.

Organization Name (As Appropriate) PR/Award Number or Project Name

Printed Name

Signature Date

ED 80-0005

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Part III

Department of Labor

Occupational Safety and Health Administration

29 CFR Part 1910

Personal Protective Equipment for General Industry; Proposed Rule

DEPARTMENT OF LABOR

Occupational Safety and Health Administration

29 CFR Part 1910

[Docket No. S-060]

RIN 1218-AA71

Personal Protective Equipment for General Industry

AGENCY: Occupational Safety and Health Administration, Department of Labor.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Occupational Safety and Health Administration (OSHA) proposes to revise portions of the general industry safety standards addressing personal protective equipment. The standards proposed for revision regulate the design, selection, and use of personal protective equipment (eye, face, head and foot protection).

The existing personal protective equipment (PPE) standards (29 CFR part 1910) apply to all general industry places of employment. Many of these standards are design restrictive, and/or outdated, and must be supplemented by administrative action to permit the use of more recently developed PPE which provide equivalent or better protection. In addition, the existing standards do not always provide clear requirements for the selection and use of PPE.

OSHA would delete, where appropriate, existing specification provisions and use performance-oriented provisions to address hazards to the eyes, face, head and foot. The Agency would also update the general industry PPE standards, where appropriate, to provide clearer requirements and guidance for the selection and use of PPE. The proposal would also add non-mandatory appendices A and B to this subpart to address PPE for eye, face, head, and foot hazards.

DATES: Comments on this proposed rulemaking and requests for a hearing must be postmarked by October 16, 1989.

ADDRESS: Written comments and requests for hearing should be sent to the Docket Officer, Docket No. S-060, U.S. Department of Labor, Room N-2634, 200 Constitution Avenue NW., Washington, DC 20210.

FOR FURTHER INFORMATION CONTACT: Mr. James Foster, Division of Information and Consumer Affairs, U.S. Department of Labor, Occupational Safety and Health Administration, Room N-3647, 200 Constitution Avenue NW., Washington, DC 20210. Telephone: (202) 523-8151.

SUPPLEMENTARY INFORMATION:

I. Background

Sections 1910.132 through 1910.140 of subpart I, Personal Protective Equipment, were adopted by OSHA in 1971 from established Federal standards and national consensus standards under section 6(a) of the Occupational Safety and Health Act of 1970 (the Act) (29 U.S.C. 655(a)). Subpart I covers the use of personal protective equipment (PPE), in general, and contains specific requirements and criteria for eye and face protection, respiratory protection, head protection, foot protection, and electrical protective devices. OSHA believes that the existing standards for PPE in subpart I are outdated. The Agency is addressing the need to update the regulation of respiratory protection and electrical protective devices in separate rulemakings. The present rulemaking is intended to update the requirements for eye, face, head and foot protective devices. The existing standards reflect the knowledge and practices regarding PPE as they existed in the late 1960's through early 1970's. They specify very restrictive design criteria (thus limiting the use of new technology), and contain gaps in coverage.

OSHA is concerned that restraints on innovation make it more difficult for employers either to increase acceptance of PPE or to provide more protective PPE. Indeed, recognizing this likelihood, the Agency has already established a process under which OSHA has accepted, on a case-by-case basis, the use of eye protection which, while not designed to satisfy the existing standards, has been demonstrated through testing to provide equivalent or superior worker protection. However, the Agency believes that this process cannot keep pace with the development of improved PPE. Therefore, OSHA is concerned that, unless the PPE standards are revised to be more performance-oriented, employers and product manufacturers will be discouraged from improving their equipment and providing improved protection to workers.

Since 1971, the American National Standards Institute (ANSI) has revised its consensus standards for head, foot, and eye and face protection. OSHA proposes to use the most recent revisions of these standards as part of the basis for its rulemaking. For instance, OSHA has based its proposed revision of the requirements for foot protection on ANSI Z41-1983, Personnel Protection—Protective Footwear. This ANSI Standard, unlike the existing OSHA foot protection standard, covers foot protection for women as well as for men. This proposed change would address a serious gap in coverage under the existing standards. In addition, OSHA has obtained injury data and technical reports which show that injuries are occurring to employees who are not wearing PPE, as well as to some employees who are wearing PPE. This would indicate that significant improvements in PPE design and acceptance are needed. OSHA believes that the record developed in the course of this rulemaking will enable the Agency to promulgate revised standards for PPE that are more clearly written, more comprehensive, and more accurately reflect available technololgy. OSHA expects that compliance with the proposed revisions will substantially reduce the risks to workers from the pertinent hazards.

II. Hazards Involved

OSHA has determined that workers in a wide range of occupations are exposed to a significant risk of death or serious injury from being struck by various objects in the workplace. OSHA's accident data indicate that a significant portion of all work related injuries and fatalities involve workers being struck in the eyes, face, head or feet by foreign objects. Among the references which document this problem are the Bureau of Labor Statistics (BLS) work injury reports on eye, face, head and foot injuries; the BLS Supplementary Data System Information, the National Safety Council *Accident Facts*; the National Institute for Occupational Safety and Health (NIOSH) studies of accident data; and, articles in trade journals and safety magazines (References 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16, 17, 18, 19, 20, 21, 22). While these sources differ as to the number and kind of injuries, they are consistent in pointing out the high incidences and severity of these accidents, and provide clear evidence of a significant risk to workers.

In 1981, disabling occupational injuries and illnesses to the head, eyes, face, and feet account for over 14 percent of the disabling occupational injuries reported through the Bureau of Labor Statistics Supplementary Data System. The BLS estimated that these disability injuries included 116,000 eye injuries, 40,000 face injuries, 46,800 head injuries, and 156,400 foot and toe injuries (Reference 5).

The 1988 edition of *Accident Facts* estimated that, in 1987, there were 70,000 eye injuries, 70,000 head and face injuries, and 110,000 foot and toe injuries. Those injuries constituted 13.8 percent of the estimated 1,800,000 total disabling work injuries for 1987 (Reference 15).

The Injury Surveillance Branch, Division of Safety Research, National Institute for Occupational Safety and

Health (NIOSH), relying on data received through the U.S. Consumer Product Safety Commission, National Electronic Injury Surveillance System, reported 333,272 occupational eye injuries for 1985 (Reference 8). The National Society to Prevent Blindness estimates that 2,500 eye injuries occur in the workplace every working day, and that the cost to employers is $130 million per year (including medical costs and wage compensation) (Reference 9).

A BLS Supplementary Data System (SDS) tabulation (all industries) of 18 states reported that in 1983 37,379 injuries to the eyes, 16,366 injuries to the face, 13,844 injuries to the head, and 59,970 injuries to the feet were recorded as worker compensation cases. OSHA notes that each state has its own requirements for the minimum number of days (ranging from one to eight days) that a worker must be disabled before an injury gives rise to a worker compensation case. OSHA believes that this factor accounts for the apparent minor discrepancy between the 1983 BLS data and the other estimates for eye injuries. These injuries represent 12.7 percent of the total injuries reported (999,703) (Reference 10).

OSHA has used the Bureau of Labor Statistics Work Injury Reports (WIR) on eye, face, foot and head injuries in determining what sorts of PPE-related injuries workers experience (References 11, 12, 13, 14). (See injury tables, below. These tables are based on BLS surveys of injured workers, and do not reflect the universe of non-injured workers.)

EYE INJURIES BY TYPE OF ACCIDENT, SELECTED STATES

[July-August 1979]

Item	All workers (100%)		Workers wearing eye protection (41%)	
	No.	Percent	No.	Percent
Total	1,052	100	435	100
Flying or falling object struck worker	727	69	355	82
Struck non-moving object	21	2	5	1
Liquid or chemical injured worker	216	21	59	14
Occurred in another way	88	8	16	4

(Workers not wearing eye protection=59 percent).

NOTE: This table does not reflect workers whose eye protection prevented injuries.

FACE INJURIES BY TYPE OF ACCIDENT, SELECTED STATES

[July-November 1979]

Item	No. of workers	Percent of workers
Total	774	100
Flying or falling objects struck worker	344	44
Struck non-moving object	48	6
Liquid or chemical injured worker	35	5
Swinging object struck face	154	20
Object or tool was pulled into face	114	15
Powered tool kicked back into face	33	4
Occurred in other way	46	6

NOTE: This table does not reflect workers whose face protection prevented injuries.

FOOT INJURIES BY DESCRIPTION OF ACCIDENT, SELECTED STATES

July-August 1979

Item	All workers (100%)		Workers wearing safety shoes (23%)	
	Number	Percent	Number	Percent
Total	1,251	100	283	100
Stepped on sharp object	194	16	24	8
Struck by falling object	721	58	191	67
Object rolled onto or over foot	169	13	36	13
Squeezed between	59	5	13	5
Struck foot against object	28	2	3	1
Occurred in another way	81	6	16	6

Note: This table does not reflect workers whose foot protection prevented injuries.

HEAD INJURIES BY DESCRIPTION OF ACCIDENT, SELECTED STATES

July-September 1979

Item	All workers (100%)		Workers wearing hard hats (16%)	
	Number	Percent	Number	Percent
Total	1,033	100	170	100
Head struck non-moving object	299	29	21	12
Swinging object struck	198	19	44	26
Falling object struck head	371	36	62	36
Flying object struck head	120	12	34	20
Occurred in another way	45	4	9	5

Note: This table does not reflect workers whose head protection prevented injuries.

A Work Injury Report (WIR) on eye injuries conducted by the BLS shows that three-fifths of the injured workers surveyed (1,052) were not wearing eye protection. Where injured workers were wearing eye protection, in 94 percent of the incidents, the harm was caused by materials which went around or under the protector (Reference 11).

Similar results are reported in the BLS WIR on face injuries. Virtually all of the injured workers (774) had not worn face protection. Of the nine workers in the survey who were wearing face protection, five were injured by materials which went around or under the protector, and in three cases the protector was knocked off the worker by the impact of the object which caused the injury. The typical face injury was caused by flying or falling blunt metal objects (Reference 12).

The BLS WIR on head injuries shows that 84 percent of the injured workers studied (1,033) were not wearing head protection. Where workers were wearing PPE, almost 70 percent received blows to an unprotected part of the head. Over one-third of the accidents resulted from falling objects striking the head. Three-tenths of the accidents occurred when workers struck a nonmoving object and one-fifth occurred when a swinging object such as a steel bar, struck the head (Reference 13).

Regarding foot injuries, the BLS WIR indicates that fewer than one-fourth of the injured workers (1,251) were wearing safety shoes or boots at the time of the accident. Nearly three-fifths of the accidents resulted from falling objects striking the foot. Stepping on a sharp object, such as a nail, caused 16 percent of the injuries, and another 13 percent occurred when an object rolled over the foot (Reference 14).

These BLS work injury reports on eye, face, head, and foot injuries (Report Numbers 597, 604, 605, and 626) identify two major factors concerning these types of injuries. Personal protective equipment is not being worn the vast majority of the time, and when the protective equipment is worn, it does not fully protect the worker. For instance, objects go around the protector or strike an area for which the protector does not provide protection.

OSHA believes that the proposal will address the problems identified in the BLS reports by allowing new innovative designs through the use of performance-oriented language, by providing information for selecting the proper protection, and by improving the protection afforded by the equipment. (For example, the current OSHA foot protection standard does not address penetration resistance through the sole of a safety shoe, nor protection of areas of the foot other than the toe. OSHA intends through its new standards, to gain an improvement in worker acceptance of wearing protective equipment by allowing better and more comfortable designs not presently permitted by the current standards, and by providing information on selecting the proper equipment for the job.

III. Summary and Explanation of the Proposal

OSHA proposes to revise subpart I of 29 CFR part 1910 to replace, where appropriate, existing specification provisions with performance-oriented criteria for eye, face, foot and head protection. OSHA would update the design requirements for PPE by revising the standards so they reference the current edition of the pertinent ANSI standards. Requirements for PPE selection, care, use and training would appear in the body of the revised standard. As noted above, the proposed standard includes criteria for women's protective footwear, so that all protective footwear is covered. In addition, protection for the sole of the foot would be required when there is a risk of objects piercing the sole. Such protection is not provided in the current OSHA PPE standards. Provisions have been added which address the selection of PPE, defective and damaged equipment, reissued equipment, and training.

The requirements of proposed subpart I, like those of current subpart I, would apply to all general industry places of employment. The proposal would add several general requirements to § 1910.132; would revise §§ 1910.133, 1910.135 and 1910.136; would reserve §§ 1910.138, 1910.139, and 1910.140; and would add appendices A and B to subpart I.

The proposed format of part 1910, subpart I, would contain the following sections:

1910.132—General requirements
1910.133—Eye and face protection
1910.134—Respiratory protection
1910.135—Head protection
1910.136—Foot protection
1910.137—Electrical protective devices
1910.138—Incorporation by reference [reserved]
1910.139—[Reserved]
1910.140—[Reserved]

Appendix A—References for further information

Appendix B—Compliance guidelines for hazard assessment and personal protective equipment selection

The provisions of the current subpart I standards, §§ 1910.132 through 1910.140, would be revised, deleted or retained as set forth in the following table:

Current standard	Proposed standard
§ 1910.132(a)	§ 1910.132(a)*
§ 1910.132(b)	§ 1910.132(b)*
§ 1910.132(c)	§ 1910.132(c)*
§ 1910.133(a)(1)	§ 1910.133(a)(1)
§ 1910.133(a)(2)(i)	§ 1910.133(b)
§ 1910.133(a)(2)(ii)	§ 1910.133(a)(2)
§ 1910.133(a)(2)(iii)	§ 1910.133(a)(2)
§ 1910.133(a)(2)(iv)	§ 1910.133(b)
§ 1910.133(a)(2)(v)	§ 1910.133(f)
§ 1910.133(a)(2)(vi)	§ 1910.133(f)
§ 1910.133(a)(2)(vii)	§ 1910.133(e)
§ 1910.133(a)(3)(i)	§ 1910.133(a)(4)
§ 1910.133(a)(3)(ii)	§ 1910.133(a)(4)
§ 1910.133(a)(3)(iii)	§ 1910.133(a)(4)
§ 1910.133(a)(4)	§ 1910.133(b)(1)
§ 1910.133(a)(5)	§ 1910.132(g)
§ 1910.133(a)(6)	§ 1910.133(b)
§ 1910.134	§ 1910.134*
§ 1910.135	§ 1910.135(b)
§ 1910.136	§ 1910.136(b)
§ 1910.137	§ 1910.137*
§ 1910.138	None (reserved)
§ 1910.139	None (reserved)
§ 1910.140	None (reserved)

*The current requirements for these paragraphs and sections are not proposed for revision in this proposal and will remain unchanged by this rulemaking.

In addition to these sections, OSHA proposes to add non-mandatory appendices A and B, which provide references for further information for compliance assistance, and information for hazard assessment and PPE selection, respectively.

As discussed previously, the existing PPE standards reference obsolete national consensus standards. In their place, OSHA has referenced the current national consensus standards in the proposed standard. In the years since the Agency promulgated part 1910, OSHA's general policy has been to use its rulemaking proceedings to delete any references to national consensus standards and to incorporate, where appropriate, the pertinent regulatory text into the OSHA standards. OSHA has set this policy because the Agency believes that the compliance burden is most reasonable when employers and employees have all of the requirements which apply to them in the body of the OSHA standards as published by the Agency, without having to track down referenced documents. However, OSHA notes that in the case of PPE design requirements, neither employers nor employees are directly concerned with the detailed design requirements or test methods. They are concerned only that the equipment satisfies the pertinent OSHA Standards. OSHA further notes that it is universal practice for PPE manufacturers to determine (usually by testing) that their equipment meets the ANSI design requirements and, then, to

advertise and mark their products as meeting the applicable standard.

OSHA has determined that compliance with the design requirements in the current editions of the national consensus standards for head, foot, eye and face protection would provide a proper level of protection. Therefore, OSHA proposes to incorporate by reference those standards for the PPE design requirements since, as discussed previously, these requirements are not normally used by employers or employees, but rather by manufacturers of PPE. The provisions affected by these incorporations by reference, §§ 1910.133(a)(6), 1910.135, and 1910.136, are discussed in more detail below. OSHA proposes to include the provisions that address PPE selection, care, use and training with the revised regulatory text.

In the early 1970's, the National Institute for Occupational Safety and Health tested various types of personal protective equipment and found that a number of them did not meet the OSHA Standards (by failing to meet the design and test requirements in the referenced American National Standards). This identified a possible need for third-party certification similar to that required in the OSHA Standards for respirators (NIOSH Certification), and electrical equipment (UL listing). More recently, the Safety Equipment Institute has met with OSHA to explain the benefits of their third-party certification program, and has encouraged OSHA to consider a requirement for certification of PPE.

There are advantages and disadvantages to third-party certification. The main disadvantage is that it could result in substantial costs to manufacturers since they would normally have to contract for services from a recognized testing laboratory. However, one advantage is that PPE which is advertised as meeting certain criteria would be tested (and certified) to ensure that the PPE does, in fact, meet that criteria.

Another advantage is that third-party certification would include a follow-up inspection service to periodically test PPE to ensure continued compliance with specified criteria.

OSHA requests comments and information on whether or not OSHA should include a requirement in the PPE standards that employers obtain third-party certification that their PPE meets the applicable OSHA requirements. While the current OSHA standards do not require certification, there are several certification programs currently in place (such as those administered by the Safety Equipment Institute and the Footwear Industries of America) which are being utilized by equipment manufacturers. Is certification of PPE necessary to ensure that head, foot, eye and face PPE meets OSHA standards? What would be the costs and benefits of certification, if such a requirement were added?

In accordance with paragraph 6(b)(8) of the OSH Act (29 U.S.C. 655), the Agency has reviewed the various national consensus standards that cover working conditions addressed in this proposal. OSHA has incorporated appropriate provisions from those national consensus standards as part of this proposal. OSHA believes that the proposed standard will better effectuate the purposes of the Occupational Safety and Health Act of 1970 than the national consensus standards which have not been made a part of this proposal, because this proposal is more comprehensive, provides greater flexibility in its requirements for safety, and provides for public participation and comment.

The revision of these general industry PPE Standards will be coordinated with efforts to revise parallel provisions in the Shipyard Employment and Construction Standards so that consistent coverage of hazards which are encountered in these industry sectors can be provided.

The following discussion provides a more detailed explanation of the proposed provisions related to personal protective equipment.

Section 1910.132 General Requirements

Existing paragraphs (a) through (c) of § 1910.132 are not proposed for revision in this rulemaking. Existing paragraph (a) requires that protective equipment be provided, used and maintained in sanitary and reliable condition, as necessary, to protect employees from workplace hazards. Existing paragraph (b) requires that, where employees provide their own equipment, the employer assure the adequacy, including the proper maintenance and sanitation, of such equipment. Existing paragraph (c) requires that all personal protective equipment be of safe design and construction for the work to be performed.

Proposed paragraph (d) of § 1910.132 would be added to address the selection of personal protective equipment (PPE). The current standards do not contain a similar provision. This proposed provision would require employers to select the PPE for their employees based on an assessment of the hazards in the workplace and the hazards which employees are likely to encounter. Because OSHA is aware that some employees are responsible for obtaining their own PPE, the proposed provision requires employers to inform their employees of the selection decisions and ensure, regardless of who obtains it, that the correct PPE is, in fact, obtained. This provision is based on current § 1910.133(a)(1), which covers eye and face protection, but the provision has been expanded so that it covers selection of all personal protective equipment.

Proposed paragraph (e), a new requirement, prohibits the use of defective or damaged PPE. This provision is based, in part, on § 1910.133(a)(2)(vii) of the existing standard, which states that protectors should be kept clean and in good repair. Under the proposed paragraph, this requirement would cover all PPE.

Proposed paragraph (f) is a new requirement that would require employees to be trained in the proper use of their personal protective equipment. This paragraph is based on existing § 1910.134(b)(3) that requires training for respirator use and has been expanded to cover all PPE. OSHA proposes this requirement because the Bureau of Labor Statistics Work Injury Reports indicated that a significant number of the employees injured had not received training in the proper use of PPE (References 11, 12, 13, and 14).

Section 1910.133 Eye and Face Protection

Under proposed paragraph (a)(1), employers must ensure that employees use appropriate eye and face protection when they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, chemical gases or vapors, or potentially injurious light radiation. The only significant difference between proposed paragraph (a)(1) and existing paragraph (a)(1) is that the term "liquids" would be replaced by the terms "molten metal" and "liquid chemicals" in the list of hazards for which eye and face protection are required. OSHA believes it is appropriate to specify that molten metal is covered to prevent confusion over whether or not molten metal is a "liquid."

Also, proposed paragraph (a)(1) replaces the general requirement for "suitable" eye protection with the requirement that eye protection used by employees provide both front and side protection from flying objects. OSHA notes, for example, that eye protection with side shields or molded wrap-around lenses and frames, would satisfy this requirement. The proposed revision

is based on the Bureau of Labor Statistics Work Injury Report on eye injuries which identified that in cases where eye protection was used, 94 percent of the incidents occurred when an object (or chemical) went around the protection (Reference 11). OSHA requests comments on the need for this revision, including information on the extent to which employers are already providing eye protection which satisfies the proposed requirement and any additional costs which would be involved in obtaining eye protection which meets the proposed requirement.

Existing § 1910.133 is based on ANSI Z87.1–1968, section 4. Existing paragraph (a)(1) of § 1910.133 contains a general provision to require eye and face protection where such use could prevent probable injuries. This provision is so general that it is difficult to determine what is required. Therefore, we are proposing to make §1910.133(a)(1) more specific to better clarify when eye and face protection are required. Existing § 1910.133(a)(1) also requires that suitable eye and face protection be made conveniently available; and, that unprotected persons not be knowingly subjected to hazards. These two provisions are being deleted from proposed § 1910.133(a)(1) since they are already addressed elsewhere in this proposed standard (existing § 1910.132(a) and proposed § 1910.132(d)).

Proposed paragraph (a)(2), requires that eye and face protective equipment fit employees properly. The proposed requirement is based on existing § 1910.133 (a)(2)(ii) and (a)(2)(iii), as well as on ANSI Z87.1–1989, section 7.4. OSHA believes that the proposed simplified requirement will provide employers with the appropriate guidance so they can assure good vision and proper eye protection for employees. The Agency has not retained existing paragraph (a)(2)(i) in the proposed rule, because that provision's requirement for PPE which provides "adequate protection" would be covered by proposed paragraph (a)(1).

In addition, existing § 1910.133(a)(2)(iv), which requires protectors to "be durable", is proposed to be removed since the intent of the existing provision is now covered by proposed § 1910.132(e), which prohibits defective or damaged PPE from being used, and by proposed § 1910.133(b), which covers the design requirements for eye and face protection.

Existing § 1910.133 (a)(2)(v) and (a)(2)(vi) which require protectors to "be capable of being disinfected" and "be easily cleanable," are proposed to be removed since they are redundant to duties already imposed by § 1910.132(a) of the existing standard.

Existing § 1910.133(a)(2)(vii), which recommends that protectors "be kept clean and in good repair," is proposed to be removed since it is not a mandatory requirement and does not belong in the standard. The intent of the recommendations is covered by proposed § 1910.132(e).

Proposed paragraph (a)(3) adds a new requirement—that workers who pass from well-lit to dimly-lit areas not wear protectors with tinted, or variable tinted lenses. This provision would reduce the likelihood that extreme lighting changes will temporarily impair an employee's vision, such as when a forklift operator drives a forklift from the outdoors into a poorly lit warehouse. OSHA solicits comments regarding the need for and suitability of this proposed requirement, with emphasis on the extent to which wearing tinted lenses in these situations actually adds to the recognized vision problem caused by dim lighting.

Proposed paragraph (a)(4), which is based on existing § 1910.133(a)(3), requires that employees who wear prescription lenses be protected by eye protection that incorporates the prescription in its design or by eye protection that can be worn over prescription lenses without interfering with the prescription lenses such that vision becomes impaired, or when protection is not fully provided because of interference.

Existing § 1910.133(a)(4), which requires that "every protector shall be distinctly marked to facilitate identification only of the manufacturer," is proposed to be removed since a marking to identify the manufacturer of eye and face protection does not add or detract from the safety afforded by the protector. ANSI Z87.1–1989, which is proposed to be incorporated by reference, contains this same requirement. However, the deletion of this requirement by the proposal, would supersede this ANSI requirement.

Existing § 1910.133(a)(5), which requires that "limitations or precautions" provided by the manufacturer "be transmitted to the user and care be taken to see that such limitations and precautions are strictly observed," is proposed to be removed. The intent of the existing provision is now covered by proposed § 1910.132(f), which requires employees to be trained in the proper use of their PPE, and by proposed appendix B which provides compliance guidelines for selection of PPE.

Proposed paragraph (a)(5), a new provision, requires that employees potentially exposed to injurious radiant energy, such as that produced by welding, use eye protection with filter lenses which have a shade number appropriate for the work being performed. In addition, this proposed provision includes a list of the proper shade numbers for various operations. Existing § 1910.133(a)(1) requires protection from potentially injurious light radiation, OSHA has determined, however, that the proposed provision states the requirements more clearly.

In paragraph (b), OSHA proposes that the design requirements for eye and face protection comply with the provisions of ANSI Z87.1–1989, or be of a design that provides equivalent protection.

Currently, the requirements for the design of eye and face protection are found in § 1910.133(a)(6), which references the 1968 edition of ANSI Z87.1. Proposed paragraph (b) merely updates the ANSI reference for the design of eye and face protection to reflect the current (1989) edition. The design criteria contained in the 1989 edition of ANSI Z87.1 are much more performance-oriented than those in the existing OSHA standard, and can be met by eye and face protection currently in use in general industry.

The 1989 edition of ANSI Z87.1 that OSHA proposes to incorporate by reference contains design criteria for plano spectacles, as well as criteria and test methods for: Optical performance; transmittance impact, flammability; corrosive resistance for metal parts; and, cleanability.

Section 1910.135 Head Protection

Proposed paragraph (a)(1), mandates that employers require their employees wear protective helmets when they are working where there is a potential for injury to the head from falling or moving objects. This language, based on existing § 1910.132(a), has been revised to clarify when head protection is required.

Proposed paragraph (a)(2) requires that employees who are near exposed energized conductors which their heads could contact must wear helmets designed for protection from electrical shock hazards. This provision, based on existing §§ 1910.132(a) and 1910.135, would clarify when electrical protective type helmets must be worn.

Proposed paragraph (b) requires that the design of protective helmets comply with the provisions of ANSI Z89.1–1986, "Requirements for Protective Headwear for Industrial Workers," (Reference 2) or be of a design that provides equivalent protection. ANSI Z89.1–1986 covers impact resistance, penetration protection, flammability, water

absorption resistance, electrical insulation and maximum weight. The existing OSHA standard for head protection, § 1910.135, references ANSI Z89.1–1969 (Reference 26). This earlier edition, except insofar as it addresses electrical insulation for Class B helmets, sets essentially the same requirements as would apply through the proposed paragraph (b) reference to ANSI Z89.1–1986. A significant difference between the helmet provisions referenced in proposed paragraph (b) and the present OSHA requirements involves the relevant testing for helmets used for protection against live electrical conductors. The testing requirements in the 1986 ANSI standard are somewhat more stringent for "Class B" helmets than those referenced in the current OSHA standards. However, OSHA believes that helmets currently used for protection against electrical contact in general industry meet the electrical insulation requirements in ANSI Z89.1–1986. The effect of this change in testing requirements involves only a small number of employees, primarily linemen and tree trimmers, who generally wear helmets which are classified under the ANSI standard as "Class B" helmets. The Agency solicits comments and information on helmets presently used for electrical protection in general industry, and whether such helmets would comply with the proposed OSHA standards.

Currently, OSHA does not have any requirements for "bump caps" (a type of headwear that is intended to provide head protection from minor impact and protection from cuts and scrapes). Should OSHA include requirements for the use and design of "bump caps"? Are there any voluntary or consensus standards for "bump caps"? What would be the economic and safety impact if OSHA added requirements for the use and design of "bump caps"? How should OSHA target the use of bump caps to determine when or when not they are needed?

Section 1910.136 Foot Protection

Proposed paragraph (a) requires employers to ensure that their employees wear protective footwear when they are working in areas where there is a danger of foot injuries due to falling and rolling objects, or objects piercing the sole. In substance, the same general requirement is contained in existing § 1910.132(a). This proposed language, however, clarifies the circumstances where foot protection would be required. The current OSHA standard for foot protection, § 1910.136, references ANSI Z41.1–1967, which has been superseded by ANSI Z41–1983. The 1967 edition of ANSI Z41.1 did not set requirements for sole puncture resistance, whereas the current ANSI Z41–1983 standard does. The Bureau of Labor Statistics' Work Injury Report (WIR) on foot injuries (Reference 14) indicates that objects piercing the sole accounted for 16 percent of foot injuries to all workers in the survey, and eight percent for those workers in the survey who were wearing safety shoes. Therefore, OSHA is proposing that footwear, in addition to protecting employees from falling or rolling objects, protect them from sole punctures. The Agency solicits comments and information on the extent to which employers or employees are arranging for the availability and use of protective footwear which meets the proposed requirement. OSHA also seeks information on any additional costs involved in obtaining foot protection which meets the proposed requirement.

In paragraph (b), OSHA proposes that the design of protective footwear comply with the provisions of ANSI Z41–1983 (Reference 3) or be of a design that provides equivalent protection. The provisions in ANSI Z41–1983 cover compression resistance, impact resistance and puncture resistance. Existing § 1910.136, through its reference to the 1967 edition, sets compression and impact requirements, which are the same as those in ANSI Z41–1983. However, as noted above, the 1967 edition applied only to men's protective footwear. ANSI Z41–1983 covers both men's and women's protective footwear, thus filling a gap in the current OSHA standard for protective footwear. OSHA believes that protective footwear which complies with the ANSI Z41.1–1967 standard would also comply with the ANSI Z41–1983 requirements for compression and impact resistance. As discussed above, puncture resistance was not covered in the ANSI Z41.1–1967 standard.

Appendices A and B to Subpart I

As discussed above, OSHA proposes to add non-mandatory appendices A and B to subpart I to provide a list of references for further information which may be useful in implementing this standard, and to provide compliance guidelines on hazard assessment and personal protective equipment selection.

IV. References

1. American National Standards Institute (ANSI). *American National Standard Practice for Occupational and Educational Eye and Face Protection.* (ANSI Z87.1–1989). New York, NY: ANSI, 1989.

2. American National Standards Institute (ANSI). *American National Standard Safety Requirements for Protective Headwear for Industrial Workers.* (ANSI Z89.1–1986). New York, NY: ANSI, 1981.

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4. American National Standards Institute (ANSI). *Proposed ANSI Z87.1–198X, Occupational and Educational Eye and Face Protection Standard,* Draft V. New York, NY: ANSI, August 1986.

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8. Injury Surveillance Branch, Division of Safety Research, National Institute for Occupational Safety and Health (NIOSH). Unpublished summary analysis, "Frequencies of Selected Occupational Conditions by Data Source, 1980–1985," Morgantown, WV: NIOSH, 1986.

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Occupational Hazards, Cleveland, Ohio: February 1984.

17. McCrea, Mary Jacobs. "Identification of Eye Hazards in the Workplace," Department of Health, Education, and Welfare, Public Health Service, Food and Drug Administration, Dermal and Ocular Toxicology Branch, Washington, DC: Memorandum, October 23, 1978.

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19. McKenzie, Leisa. "The Eyes Have It * * * But Not Without Personal Protective Equipment," *Ohio Monitor*, Columbus, Ohio, September 1985.

20. Crapnell, Stephen G. "Eye, Head, and Face Injuries: Prevention, Protection, and Payoff," *Occupational Hazards*, Cleveland, Ohio, July 1983.

21. Kendall, Richard M. "Pfizer Formula Prevents Eye, Face, and Head Injuries," *Occupational Hazards*, Cleveland, Ohio, November 1986.

22. Nemec, Margaret M. "Head, Eye and Face Protection at Republic Steel," *Occupational Hazards*, Cleveland, Ohio, February 1980.

23. American National Standards Institute (ANSI). *Proposed ANSI Z87.1–198X, Occupational and Educational Eye and Face Protection Standard*, Draft VI. New York, NY: ANSI, August 1987.

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25. King, J.H. et al. "Norton Panalens 180 Project Report," Norton Company Safety Products Division, December 8, 1980.

26. American National Standards Institute (ANSI). *American National Standard Safety Requirements for Industrial Head Protection.* (ANSI Z89.1–1969). New York, NY: ANSI, 1969.

V. Preliminary Regulatory Impact Assessment and Regulatory Flexibility Analysis

Introduction

OSHA adopted its current standards for personal protective equipment (PPE) from National Consensus Standards under section 6(a) of the OSH Act. In the nearly two decades that have passed since these standards were developed, a number of advances have been made in PPE technology. Thus, OSHA is proposing to revise this workplace standard in order to reflect these improved means of hazard prevention.

Executive Order 12291 (46 FR 13197) requires that a regulatory impact analysis be prepared for any proposed regulation that meets the criteria for a "major rule"; that is, that would be likely to result in an annual impact on the economy of $100 million or more; a major increase in cost or prices for consumers, individual industries, federal, state, or local government agencies, or geographic regions; or, significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets. In addition, the Regulatory Flexibility Act (5 U.S.C. 60, *et seq.*) requires an analysis of whether a regulation will have a significant economic impact on a substantial number of small entities.

Consistent with these requirements, OSHA has prepared this Preliminary Regulatory Impact and Regulatory Flexibility Analysis for the proposed revisions to the PPE standard. As a result of this analysis OSHA has made a preliminary determination that the proposed revision to the PPE regulations will not constitute a major rule.

Affected Industries and Current Use

Based on a preliminary report prepared by Eastern Research Group [1] OSHA has determined that virtually all industries covered by the General Industry Standards will be affected by these revisions. The extent of the impact will vary by industry depending on the hazards, the types of occupations and the current practice regarding PPE use. The U.S. Bureau of Labor Statistics (BLS) groups employment into seven major occupational categories, of which two: (1) Construction, operating, maintenance and material handling and (2) agriculture, forestry, fishing and related activities are assumed to include most of the occupations covered by this proposal. These two employment groups have been used as an estimate of the population-at-risk. Table I–1 presents estimates of the number of establishments, total employment and population-at-risk, by affected industry.

TABLE I–1.—ESTABLISHMENTS AND EMPLOYMENT OF AFFECTED INDUSTRIES

	SIC code industry	Establishments(a)	Employment(b) (000)	Employment per establishment	Population-at-risk (000)
	Agriculture (c)	163,698	441.8	2.7	390.8
078	Landscape and horticultural services	31,126	178.0	5.7	160.2
	Forestry:				
08	Forestry	1,656	16.4	9.9	14.8
	Fishing, hunting, and trapping				
09	Fishing, hunting, and trapping	1,916	8.6	4.5	0.9
09	Commercial fishing(d)	129,000	238.8	1.9	214.9
	Mining:				
13	Oil and Gas Extraction	25,042	457.4	18.3	242.4
	Manufacturing:	347,822	18,997.1	54.6	12,449.0
20	Food and kindred products	21,569	1,619.9	75.1	1,192.2
21	Tobacco products	164	59.3	361.6	42.0
22	Textile mill products	6,221	705.3	113.4	586.1
23	Apparel and other textile products	23,237	1,105.5	47.6	925.3
24	Lumber and wood products	32,271	710.5	22.0	588.3
25	Furniture and fixtures	10,812	497.1	46.0	394.2
26	Paper and allied products	6,324	674.3	106.6	499.7
27	Printing and publishing	56,137	1,457.1	26.0	649.9
28	Chemicals and allied products	12,077	1,022.6	84.7	511.3
29	Petroleum and coal products	2,328	168.8	72.5	94.7
30	Rubber and misc. plastics products	13,969	789.5	56.5	612.7
31	Leather and leather products	2,442	151.2	61.9	121.6
32	Stone, clay, and glass products	16,159	585.8	36.3	451.1
33	Primary metal industries	6,921	752.5	108.7	583.2

TABLE I-1.—ESTABLISHMENTS AND EMPLOYMENT OF AFFECTED INDUSTRIES—Continued

	SIC code industry	Establishments(a)	Employment(b) (000)	Employment per establishment	Population-at-risk (000)
34	Fabricated metal products	35,380	1,431.1	40.4	1,050.4
35	Industrial machinery and equipment	50,703	2,059.7	40.6	1,172.0
36	Electric and electronic equipment	17,392	2,123.0	122.1	1,154.9
37	Transportation equipment	9,498	2,015.1	212.2	1,229.2
38	Instruments and related equipment	8,294	706.8	85.2	344.2
39	Miscellaneous manufacturing industries	15,924	362.0	22.7	246.2
	Transportation, communication, utilities	184,197	4,150.0	22.5	2,075.2
41	Local and interurban passenger transit	14,042	281.5	20.0	198.7
42	Trucking and warehousing	89,081	1,382.2	15.5	1,031.1
47	Transportation services	33,836	283.8	8.4	35.2
48	Communication	29,513	1,278.8	43.3	359.3
49	Electric, gas and sanitary services	17,725	923.7	52.1	450.8
	Wholesale Trade	432,278	5,734.0	13.3	1,694.7
50	Durable goods	268,948	3,383.0	12.6	923.6
51	Non-durable goods	163,330	2,351.0	14.4	771.1
	Retail Trade	1,393,820	17,845.0	12.8	2,019.3
52	Building materials and garden supplies	68,517	701.1	10.2	174.6
53	General merchandise stores	35,265	2,362.9	67.0	139.4
54	Food stores	182,725	2,872.9	15.7	249.9
55	Automotive dealers and service station	200,942	1,942.7	9.7	883.9
56	Apparel and accessory stores	139,293	1,070.4	7.7	46.0
57	Furniture and home furnishings stores	98,001	770.6	7.9	174.2
58	Eating and drinking places	351,323	5,878.8	16.7	70.5
59	Miscellaneous retail	317,754	2,245.6	7.1	280.7
	Finance, insurance and real estate	485,806	6,477.1	13.3	462.8
60	Banking	52,215	1,736.0	33.2	8.7
61	Credit agencies other than banks	61,145	831.0	13.6	0.0
62	Security, commodity brokers and service	18,843	392.4	20.8	2.4
63	Insurance carriers	34,630	1,364.2	39.4	146.0
64	Insurance agents, brokers and service	96,282	580.7	6.0	0.0
65	Real estate	198,460	1,187.3	6.0	286.1
66	Combined real estate, insurance, etc.	4,973	192.2	38.6	9.8
67	Holding and other investment offices	19,258	193.3	10.0	9.9
	Services	1,706,018	22,280.5	13.1	2,639.4
70	Hotels and other lodging places	48,017	1,401.1	29.2	110.7
72	Personal services	175,171	1,104.2	6.3	297.0
73	Business services	258,387	4,781.0	18.5	693.2
75	Auto repair, services, and parking	127,636	762.1	6.0	536.5
76	Miscellaneous repair services	56,669	320.0	5.6	217.0
78	Motion pictures	18,208	226.5	12.4	28.1
79	Amusement and recreation services	60,210	915.0	15.2	129.9
80	Health services	390,223	6,550.5	16.8	229.3
81	Legal services	125,706	747.7	5.9	0.0
82	Educational services	30,093	1,428.0	47.5	91.4
83	Social services	88,096	1,457.0	16.5	131.1
84	Museums, botanical, zoological gardens	2,005	46.2	23.0	5.9
86	Membership organizations	175,977	1,262.0	7.2	125.8
89	Miscellaneous services	149,620	1,279.2	8.5	43.5

NA—Not available.
Sources: Eastern Research Group [1].
(a) U.S. Department of Commerce, Bureau of the Census, County Business Patterns, 1985.
(b) U.S. Department of Labor, Bureau of Labor Statistics, Employment and Earnings.
(c) National Arborists' Assoc. and ERG estimates.
(d) National Marine Fisheries Services. 1987. Fisheries of the United States, 1986. April, ERG considered each vessel to be an establishment.

Most types of PPE have been in widespread use in most industries for many years. There are, however, very little statistical data available that would allow a determination of the number of employees who either are using PPE, or who should be wearing PPE by virtue of the hazards to which they are exposed.

OSHA's inspection data shows that approximately 3.5 percent of all planned safety inspections result in a citation under the existing PPE standard. What is not shown by these data is the degree of hazard present at these workplaces, the number of workers exposed to the hazard, or the type of PPE required.

Several Work Injury Report (WIR) published by the BLS cover a number of specific industries or types of injuries. These reports, which examine only those cases where a worker was injured, indicate that many workers are not wearing PPE or are wearing inadequate PPE. Of the approximately 22 million workers at risk, OSHA estimates that about 12.8 percent or 2.8 million workers are not wearing the appropriate PPE (See chapter II of full analysis). OSHA also estimates that relatively few firms have performed a formal hazard assessment of the potential hazards in their workplace. Also, OSHA assumes that many workers are not wearing PPE or are wearing inadequate PPE due to a lack of training regarding the importance of using this equipment.

Nonregulatory Environment

The primary objective of OSHA's proposed revisions to the PPE standard is to reduce the number of employee injuries and deaths resulting from nonuse of PPE or use of inappropriate PPE. OSHA believes that the present risk to employees is too high and that the proposed revisions will prevent a substantial number of these injuries and fatalities. OSHA examined the nonregulatory approaches for promoting

adequate levels of PPE use including (1) economic forces generated by the private market system, (2) incentives created by Workers' Compensation programs or the threat of private suits, and (3) related activities of private agencies. As a result of this review, OSHA has determined that the need for government regulation arises from the significant risk of job-related injury or death caused by the inadequate rate of optional private hazard-abatement expenditure. Private markets fail to provide enough safety and health resources due to the lack of risk information, the immobility of labor, and the externalization of part of the social costs of worker injuries and deaths. Workers' Compensation systems do not offer an adequate remedy because the premiums do not reflect specific workplace risk, and liability claims are restricted by state statutes preventing employees from suing their employers. While certain voluntary standards exist, their scope and approach fail to provide adequate protection for all workers. Thus, OSHA has determined that a federal standard is necessary.

Costs of Compliance

Under both the existing and proposed standards there are requirements to provide PPE wherever there are hazards present in the workplace. OSHA estimates that the incremental cost to comply with the revised rule would be approximately $28.3 million annually. The annualized cost of training in the proper use of PPE is expected to be $13.9 million per year and the annualized cost of the requirement to conduct a hazard assessment is estimated to be $13.8 million per year assuming a reassessment is conducted once every five years. Using alternative assumptions regarding the frequency of the reassessment of either an initial assessment followed by annual reassessments or a reassessment every ten years resulted in estimated costs of $19.4 and $9.8 million respectively.

Table I–2 presents the aggregate cost estimates by provision for each major industry group.

TABLE I–2.—SUMMARY OF AGGREGATE COMPLIANCE COSTS

Major industry group	1910.132(a)	1910.132(d)	1910.132(g)	1910.133(a)(1)	Total compliance costs		
	Provision of PPE	Hazard assessment	PPE training	Sideshields	Proposed standard	Existing standard	Incremental costs
Landscape and horticulural services, forestry, and fisheries	$1,090,011	$1,021,816	$419,036	$8,093	$2,538,957	$1,090,011	$1,448,946
Oil and gas extraction	1,660,095	169,111	91,507	4,645	1,925,359	1,660,095	265,263
Manufacturing	40,723,673	4,671,996	6,910,023	433,721	52,739,412	40,723,673	12,015,739
Transportation, communication, utilities	6,637,128	1,712,609	1,469,490	72,300	9,891,526	6,637,128	3,254,398
Wholesale trade	4,890,006	4,381,144	1,130,399	14,761	10,416,310	4,890,006	5,526,304
Retail trade	3,636,204	749,492	1,583,219	10,553	5,979,467	3,636,204	2,343,263
Finance, insurance, real estate	833,375	249,101	250,395	2,419	1,335,291	833,375	501,915
Services	5,808,593	823,291	2,036,008	13,793	8,681,686	5,808,593	2,873,093
Totals	65,279,087	13,778,560	13,890,077	560,284	93,508,008	65,279,087	28,228,921

Source: U.S. Department of Labor, OSHA, Office of Regulatory Analysis.

Assessment of Hazards and Benefits

Full compliance with the existing or proposed standards is expected to reduce the incidence of certain types of workplace injuries and fatalities. OSHA's injury analysis has focused primarily on head, eye, face, hand and foot injuries as the ones most likely to be affected by PPE use. OSHA estimates that, annually, there are approximately 411,000 non-fatal injuries that may be related to PPE use among the population of workers covered by the standard. Based on a review of the available data, OSHA estimates that approximately 82,200 could be prevented by full compliance with the existing standard and that an additional 41,000 could be prevented by full compliance with the proposed standard. In addition, OSHA estimates that 6 fatalities per year, which result from head injuries, could be prevented by full compliance with either the existing or proposed standards.

The standard has performance-oriented provisions which address eye, face, head and foot hazards and allows employers to adopt the most up-to-date PPE for use in their establishments. The flexibility to substitute new material and technologies should produce more comfortable and protective PPE. An increase in worker acceptance and use of PPE will translate into additional benefits. While the improvement in the level of benefits is difficult to quantify, the expectation is that increased use of better equipment will prevent or lessen the severity of many accidents to the eye, face, head or foot.

Economic Impact and Regulatory Flexibility Analysis

OSHA has assessed the potential economic impact of the proposed PPE standard and has made a preliminary determination that none of the major industry groups would experience a significant economic burden as a result of the proposed standard. If all of the costs are passed through to the consumer, OSHA estimates that the average price increase would be 0.001 percent, based on the ratio of compliance costs to the value of industry shipments. The maximum price increase in any industry would be 0.06 percent.

On the other hand, if all costs were absorbed by the affected firms, OSHA estimates that the maximum reduction in profits would be less than 0.03 percent. OSHA, therefore, expects that the proposed standard will not have a significant economic impact. OSHA also determined that the proposed standard would not have a significant impact on a substantial number of small firms.

References

1. Eastern Research Group. *Economic Analysis of the Revised General Industry Personal Protection Equipment Standard (CFR 1910.132 through 1910.140)* Prepared for the U.S. Department of Labor, Occupational Safety and Health Administration under Contract No. J–9–F–0057. Arlington, MA. October 1988.

2. OSHA IMIS data covering 1985, 1986, 1987.

3. U.S. Department of Labor. Bureau of Labor Statistics. Work Injury Reports.

VI. Environmental Assessment

Finding of No Significant Impact

This proposed rule and its major alternatives have been reviewed in accordance with the requirements of the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. 4321 *et seq.*), the Guidelines of the Council on

Environmental Quality (40 CFR parts 1500 through 1517), and the Department of Labor's NEPA Procedures (29 CFR part 11). As a result of this review, the Assistant Secretary for OSHA has determined that the proposed rule will have no significant environmental impact.

The proposed revisions and additions to 29 CFR part 1910, Subpart I—Personal Protective Equipment, focus on the reduction of accidents or injuries by means of personal protective equipment, proper selection and use, and training. The proposal also contains language, and format changes. These revisions do not impact on air, water, or soil quality, plant or animal life, the use of land, or other aspects of the environment. Therefore, these revisions are categorized as excluded actions according to subpart B, section 11.10, of the DOL NEPA regulations.

VII. Recordkeeping

This proposal contains no recordkeeping requirements.

VIII. Federalism

This proposed standard has been reviewed in accordance with Executive Order 12612 (52 FR 41685, Oct. 30, 1987) regarding Federalism. This Order requires that agencies, to the extent possible, refrain from limiting state policy options, consult with states prior to taking any actions that would restrict state policy options, and take such actions only when there is clear constitutional authority and the presence of a problem of national scope. The Order provides for preemption of state law only if there is a clear Congressional intent for the agency to do so. Any such preemption is to be limited to the extent possible.

Section 18 of the Occupational Safety and Health Act (OSH Act), expresses Congress' clear intent to preempt state laws relating to issues with respect to which Federal OSHA has promulgated occupational safety or health standards. Under the OSH Act, a state can avoid preemption only if it submits, and obtains Federal approval of, a plan for the development of such standards and their enforcement. Occupational safety and health standards developed by such Plan-States must, among other things, be at least as effective in providing safe and healthful employment and places of employment as the Federal standards.

The federally proposed personal protective equipment standard is drafted so that employees in every state would be protected by general, performance-oriented standards. To the extent that there are state or regional peculiarities caused by the terrain, the climate, or other factors, states with occupational safety and health plans approved under section 18 of the OSH Act would be able to develop their own state standards to address any special problems. Moreover, the performance nature of this proposed standard, of and by itself, allows for flexibility by states and employers to provide as much safety as possible using varying methods consonant with conditions in each state.

In short, there is a clear national problem related to occupational safety and health related to personal protective equipment. While the individual states, if all acted, might be able collectively to deal with the safety problems involved, most have not elected to do so in the seventeen years since the enactment of the OSH Act. Those states which have elected to participate under section 18 of the OSH Act would not be preempted by this proposed regulation, and would be able to address special, local conditions within the framework provided by this performance-oriented standard, while ensuring that their standards are at least as effective as the Federal standard. State comments are invited on this proposal, and will be fully considered prior to promulgation of a final rule.

IX. Public Participation

Interested persons are requested to submit written data, views and arguments with respect to this proposal. These comments must be postmarked by October 16, 1989, and submitted in quadruplicate to the Docket Office, Docket No. S-060, U.S. Department of Labor, Room N-2634, Occupational Safety and Health Administration, 200 Constitution Avenue NW., Washington, DC 20210.

The data, views and arguments that are submitted will be available for public inspection and copying at the above address. All timely submissions received will be made a part of this proceeding.

In addition, under section 6(b)(3) of the OSH Act and 29 CFR 1911.11, interested persons may file objections to the proposal and request an informal hearing. The objections and hearing requests should be submitted in quadruplicate to the Docket Office at the above address and must comply with the following conditions:

1. The objections and hearing requests must include the name and address of the individual or organization making the objection or request;

2. The objections and hearing requests must be postmarked by October 16, 1989.

3. The objections and hearing requests must specify with particularity the provisions of the proposed rule to which objection is taken or about which the hearing request is made, and must state the grounds; therefore

4. Each objection and hearing request must be separately stated and numbered; and

5. The objections and hearing requests must be accompanied by a detailed summary of the evidence proposed to be adduced at the requested hearing.

Interested persons who have objections to various provisions or have changes to recommend may, of course, make these objections or recommendations in their comments; OSHA will fully consider them. There is only need to file formal "objections" separately if the interested person desires to request an oral hearing.

OSHA recognizes that there may be interested persons who, through their knowledge of safety or their experience in the operations involved, would wish to endorse or support certain provisions in the standard. OSHA welcomes such supportive comments, including any pertinent accident data or cost information which may be available, in order that the record of this rulemaking will present a balanced picture of the public response on the issues involved.

X. State Plan Standards

The 25 states and territories having OSHA-approved occupational safety and health plans must adopt a comparable standard within six months of the publication date of a final standard. These 25 are: Alaska, Arizona, California, Connecticut (for state and local government employees only), Hawaii, Indiana, Iowa, Kentucky, Maryland, Michigan, Minnesota, Nevada, New Mexico, New York (for state and local government employees only), North Carolina, Oregon, Puerto Rico, South Carolina, Tennessee, Utah, Vermont, Virginia, Virgin Islands, Washington, and Wyoming. Until such time as a state standard is promulgated, Federal OSHA will provide interim enforcement assistance, as appropriate.

XI. List of Index Terms

29 CFR part 1910: Eye protection; Face protection; Foot protection; Footwear; Hard hats; Head protection; Incorporation by reference; Occupational safety and health; Occupational Safety and Health Administration; Personal protective equipment; Safety glasses; Safety shoes.

Authority

This document was prepared under the direction of John A. Pendergrass, Assistant Secretary of Labor for

Occupational Safety and Health, U.S. Department of Labor, 200 Constitution Avenue NW., Washington, DC 20210.

Accordingly, pursuant to sections 4(b), 6(b) and 8(c) of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657), Secretary of Labor's Order No. 9–83 (48 FR 35736), and 29 CFR part 1911, it is proposed to amend 29 CFR part 1910, subpart I, as set forth below.

Signed at Washington, DC, this 8th day of August 1989.

Alan C. McMillan,

Acting Assistant Secretary of Labor.

Part 1910 of title 29 of the Code of Federal Regulations is proposed to be amended as follows:

PART 1910—OCCUPATIONAL SAFETY AND HEALTH STANDARDS

1. The authority citation for subpart I of part 1910 would be revised to read as follows:

Authority: Sections 4, 6, and 8 of the Occupational Safety and Health Act of 1970 (29 U.S.C. 653, 655, 657); Secretary of Labor's Order No. 9–83 (48 FR 35736), and 29 CFR part 1911.

2. Section 1910.132 would be amended by adding new paragraphs (d) through (f); §§ 1910.133, 1910.135 and 1910.136 would be revised; §§ 1910.138, 1910.139 and 1910.140 would be removed; and appendices A and B would be added to subpart I of part 1910 to read as follows:

Subpart I—Personal Protective Equipment

§ 1910.132 General requirements.

* * * * *

(d) *Selection.* Based on an assessment of the workplace hazards relative to personal protective equipment (PPE), employers shall select the types of PPE which will protect employees from the particular occupational hazard(s) they are likely to encounter. Such selection decisions shall be communicated to employees and followed by them if employees obtain their own equipment.

(e) *Defective and damaged equipment.* Defective or damaged personal protective equipment shall not be used.

(f) *Training.* Employees shall be trained in the proper use of their personal protective equipment.

§ 1910.133 Eye and face protection.

(a) *General requirements.* (1) Employers shall ensure that employees use appropriate eye or face protection when they are exposed to eye or face hazards from flying particles, molten metal, liquid chemicals, acid and caustic liquids, chemical gases or vapors, or potentially injurious light radiation. Eye protection used by employees shall provide both front and side protection from flying objects.

(2) Eye and face protection shall properly fit employees.

(3) Protectors with tinted or variable tinted lenses shall not be worn when an employee must pass from a brightly lighted area, such as outdoors, into a dimly lighted area, such as a warehouse.

(4) Employees who wear prescription lenses while engaged in operations that involve eye hazards shall wear eye protection that incorporates the prescription in their design, or shall be protected by eye protection that can be worn over prescription lenses without disturbing the proper position of the prescription or protective lenses.

(5) Employees shall use equipment with filter lenses which have a shade number appropriate for the work being performed for protection from potentially injurious light radiation. The following is a listing of appropriate shade numbers for various operations.

FILTER LENSES FOR PROTECTION AGAINST RADIANT ENERGY

Operation	Shade No.
Soldering	2
Light Cutting, up to one inch	3 or 4
Medium Cutting, one to six inches	4 or 5
Heavy Cutting, over six inches	5 or 6
Light Gas Welding, up to ⅛ inch	4 or 5
Medium Gas Welding, ⅛–½/inch	5 or 6
Heavy Gas Welding, over ½ inch	6 or 8
Shielded Metal-Arc Welding	
1/16 to 5/32 inch electrodes	10
Inert-Gas Metal-Arc Welding (non-ferrous)	
1/16 to 5/32 inch electrodes	11
Inert-Gas Metal-Arc Welding (ferrous)	
1/16 to 5/32 inch electrodes	12
Shielded Metal-Arc Welding	
3/16 to ¼ inch electrodes	12
5/16 to ⅜ inch electrodes	14
Atomic Hydrogen Welding	10 to 14
Carbon Arc Welding	14

Note: If filter lenses are used in goggles worn under a helmet which has a lens, the shade number of the lens in the helmet may be reduced so that the sum of the shade numbers of the two lenses will equal the value as shown in the above listing.

(b) *Acceptable designs.* Eye and face protection shall comply with the design requirements for eye and face protection in American National Standard, ANSI Z87.1–1989, "Practice for Occupational and Educational Eye and Face Protection", which is incorporated by reference, or shall be of a design which has been demonstrated to be equally effective.

§ 1910.135 Head protection.

(a) *General requirements.* (1) Employers shall ensure that employees wear protective helmets when working in areas where there is a potential for injury to the head from falling or moving objects.

(2) Protective helmets designed to reduce electrical shock hazard shall be worn by employees where they are near exposed electrical conductors which could be contacted by the protective helmets.

(b) *Acceptable designs.* The design of protective helmets shall comply with the requirements of American National Standard, ANSI Z89.1–1986, "Requirements for Protective Headwear for Industrial Workers," which is incorporated by reference or shall be of a design which has been demonstrated to be equally effective.

§ 1910.136 Foot protection.

(a) *General requirements.* Employers shall ensure that employees wear protective footwear when working in areas where there is a danger of foot injuries due to falling and rolling objects, or objects piercing the sole.

(b) *Acceptable designs.* The design of protective footwear shall comply with the requirements of American National Standard, ANSI Z41.1–1983, "Personal Protection-Protective Footwear," which is incorporated by reference or shall be of a design which has been demonstrated to be equally effective.

Appendix A to Subpart I—References for Further Information

This appendix neither adds nor detracts from requirements proposed by the standards in subpart I.

Documents 1–3 merely restate the titles of the ANSI standards which contain the requirements for the design of head, foot, eye and face protection and which are incorporated by reference in §§ 1910.133, 1910.135, and 1910.136. The remaining documents in this appendix A provide additional information which may be helpful in understanding and implementing these standards.

1. American National Standards Institute (ANSI). *American National Standard Practice for Occupational and Educational Eye and Face Protection.* (ANSI Z87.1–1989). New York, NY: ANSI, 1989.

2. American National Standards Institute (ANSI). *American National Standard Safety Requirements for Protective Headwear for Industrial Workers* (ANSI Z89.1–1986). New York, NY: ANSI, 1986.

3. American National Standards Institute (ANSI). *American National Standard for Personnel Protection-Protective Footwear.* (ANSI Z41–1983). New York, NY: ANSI, 1983.

4. Bureau of Labor Statistics (BLS). "Accidents Involving Eye Injuries." Report 597, Washington, DC: BLS, 1980.

5. Bureau of Labor Statistics (BLS). "Accidents Involving Face Injuries." Report 604, Washington, DC: BLS, 1980.

6. Bureau of Labor Statistics (BLS). "Accidents Involving Head Injuries." Report 605, Washington, DC: BLS, 1980.
7. Bureau of Labor Statistics (BLS). "Accidents Involving Foot Injuries." Report 626, Washington, DC: BLS, 1981.
8. National Safety Council. "Accident Facts", Annual edition, Chicago, IL: 1981.
9. Bureau of Labor Statistics (BLS). "Supplementary Data System (SDS) Tables of Injuries involving the eyes, face, head, and feet by Occupation and Industry," Washington, DC: BLS, for various years.
10. Bureau of Labor Statistics (BLS). "Occupational Injuries and Illnesses in the United States by Industry," Annual edition, Washington, DC: BLS.
11. National Society to Prevent Blindness. "A Guide for Controlling Eye Injuries in Industry," Chicago, IL: 1982.
12. Plummer, R.W. and Stobbe, T.J., "Recommended Use of Personal Protective Equipment in Selected Occupational Codes and Job Activities," Washington, DC: OSHA, 1984.
13. Plummer, R.W., Stobbe, T.J., et al. "Personal Protective Equipment and Welders," Washington, DC: OSHA, 1982.
14. Plummer, R.W., Stobbe, T.J., et al. "Collection of Data and Information on the Appropriate Personal Protective Equipment to be Used by Petrochemical Workers," Washington, DC: OSHA, 1984.
15. Plummer, R.W., Stobbe, T.J., et al. "Collection of Data and Information on the Appropriate Personal Protective Equipment to be Used by Foundry Workers," Washington, DC: OSHA, 1983.

Appendix B—Non Mandatory Compliance Guidelines for Hazard Assessment and Personal Protective Equipment Selection

1. *Controlling hazards.* PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices.

2. *Assessment and selection.* It is necessary to consider certain general guidelines for assessing the foot, head, eye and face hazard situations that exist in an occupational or educational operation or process, and to match the protective device to the particular hazard. It should be the responsibility of the safety officer to apply common sense and fundamental technical principles to accomplish these tasks. This process is somewhat subjective by nature, because of the infinite variety of situations where PPE may be required.

3. *Assessment guidelines.* In order to assess the need for PPE the following steps should be taken:

a. *Survey.* Conduct a walk-through survey of the areas in question. The purpose of the survey is to identify sources of hazards to the feet, head, eyes and face of workers and co-workers. Consideration should be given to the basic hazard categories:

(a) Impact
(b) Penetration
(c) Compression (roll-over)
(d) Chemical
(e) Heat
(f) Harmful dust
(g) Light (optical) radiation

b. *Sources.* During the walk-through survey the safety officer should observe: (a) Sources of motion; i.e., machinery or processes where any movement of tools, machine elements or particles could exist, or movement of personnel that could result in collision with stationary objects; (b) sources of high temperatures that could result in burns, eye injury or ignition of protective equipment, etc.; (c) types of chemical exposures; (d) sources of harmful dust; (e) sources of light radiation, i.e., welding, brazing, cutting, furnaces, heat treating, high intensity lights, etc.; (f) sources of falling objects or potential for dropping objects; (g) sources of sharp objects which might pierce the feet; (h) sources of rolling or pinching objects which could crush the feet; (i) layout of workplace and location of co-workers; and (j) any electrical hazards. In addition, injury/accident data should be reviewed to help identify problem areas.

c. *Organize data.* Following the walk-through survey, it is necessary to organize the data and information for use in the assessment of hazards. The objective is to prepare for an analysis of the hazards in the environment to enable proper selection of protective equipment.

d. *Analyze data.* Having gathered and organized data on a workplace, an estimate of the potential for foot, head, eye and face injuries should be made. Each of the basic hazards (paragraph 3.a.) should be reviewed and a determination made as to the type and level of risk from each of the hazards found in the area. The possibility of exposure to several hazards simultaneously should be considered.

4. *Selection guidelines.* After completion of the procedures in paragraph 3, the general procedure for selection of protective equipment is to: (a) Become familiar with the potential hazards and the type of protective equipment that is available, and what it can do; i.e., splash protection, impact protection, etc.; (b) compare the hazards associated with the environment; i.e., impact velocities, masses, projectile shape, radiation intensities, with the capabilities of the available protective equipment; (c) select the protective equipment which ensures a level of protection greater than the minimum required to protect employees from the hazards; and (d) fit the user with the protective device and give instructions on care and use of the PPE. It is very important that end users be made aware of all warning labels for and limitations of their PPE.

5. *Fitting the device.* Consideration must be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. Continued wearing of the device is more likely if it fits the wearer comfortably. Protective devices are generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

Devices with adjustable features. Adjustments should be made on an individual basis for a comfortable fit that will maintain the protective device in the proper position. Particular care should be taken in fitting devices for eye protection against dust and chemical splash to ensure that the devices are sealed to the face. In addition, proper fitting of hard hats is important to ensure that the hard hat will not fall off during work operations. In some cases a chin strap may be necessary to keep the hard hat on an employee's head. (Chin straps should break at a reasonably low force, however, so as to prevent a strangulation hazard.) Where manufacturer's instructions are available, they should be followed carefully.

6. *Reassessment of hazards.* It is the responsibility of the safety officer to reassess the workplace hazard situation as necessary, by identifying and evaluating new equipment and processes, reviewing accident records, and reevaluating the suitability of previously selected PPE.

7. *Selection chart guidelines for eye and face protection.* Some occupations (not a complete list) for which eye protection should be considered are: Carpenters, electricians, machinists, mechanics and repairers, millwrights, plumbers and pipefitters, sheet metal workers and tinsmiths, assemblers, sanders, grinding machine operators, lathe and milling machine operators, sawyers, welders, laborers, chemical process operators and handlers, and timber cutting and logging workers. The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard "source" operations.

SELECTION CHART

Source	Assessment	Protection
Impact:		
Chipping, grinding, machining, masonary work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding.	Flying fragments, objects, large chips, particles, sand, dirt, etc.	Spectacles with side protection, goggles, faceshields. See notes (1), (3), (5), (6), (10). For severe exposure, use faceshields.
Heat:		
Furnace operations, pouring, casting, hot dipping, and welding.	Hot sparks	Faceshields, goggles, spectacles with side protection. For severe exposure use faceshield. See notes (1), (2), (3).
	Splash from molten metals	Faceshields worn over goggles. See notes (1), (2), (3).

SELECTION CHART—Continued

Source	Assessment	Protection
	High temperature exposure	Screen faceshields, reflective faceshields. See notes (1), (2), (3).
Chemical:		
Acid and chemicals handling, degreasing plating	Splash	Goggles, eyecup and cover types. For severe exposure, use faceshield. See notes (3), (11).
	Irritating mists	Special purpose goggles.
Dust:		
Woodworking, buffing, general dusty conditions	Nuisance dust	Goggles, eyecup and cover types. See note (8).
Light Radiation:		
Welding:		
Electric arc	Optical radiation	Welding helmets or welding shields. Typical shades: 10–14. See notes (9), (12).
Gas	Optical radiation	Welding goggles or welding faceshield. Typical shades: gas welding 4–8, cutting 3–6, brazing 3–4. See note (9).
Cutting		
Torch brazing		
Torch soldering	Optical radiation	Spectacles or welding faceshield. Typical shades, 1.5–3. See notes (3), (9).
Glare	Poor vision	Spectacles with shaded or special purpose lenses, as suitable. See notes (9), (10).

Notes to Selection Chart Table

(1) Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards should be provided. Protective devices do not provide unlimited protection.

(2) Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.

(3) Faceshields should only be worn over primary eye protection (spectacles or goggles).

(4) As required by the standard, filter lenses shall meet the requirements for shade designations in § 1910.133(a)(5). Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.

(5) As required by the standard, persons whose vision requires the use of prescription (Rx) lenses shall wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear.

(6) As required by the standard, wearers of contact lenses shall also be required to wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments may represent an addition hazard to contact lens wearers.

(7) Caution should be exercised in the use of metal frame protective devices in electrical hazard areas.

(8) Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.

(9) Welding helmets or faceshields should be used only over primary eye protection (spectacles or goggles).

(10) Non-sideshield spectacles are available for frontal protection only, but are not acceptable eye protection for the sources and operations listed for "impact."

(11) Ventilation should be adequate, but well protected from splash entry. Eye and face protection should be designed and used so that it provides both adequate ventilation and protects the wearer from splash entry.

(12) Protection from light radiation is directly related to filter lens density. See note (4). Select the darkest shade that allows task performance.

8. *Selection guidelines for foot protection.* Safety shoes and boots which meet the ANSI Z41 Standard provide both impact and compression protection. Where necessary, safety shoes can be obtained which provide puncture protection. In some work situations, metatarsal protection should be provided, and in other special situations electrical conductive or insulating safety shoes would be appropriate.

Safety shoes or boots with impact protection would be required for carrying or handling of materials such as packages, objects, parts or heavy tools, which could be dropped, and for other activities where objects might fall onto the feet. Safety shoes or boots with compression protection would be required for work activities involving skid trucks (manual material handling carts) around bulk rolls (such as paper rolls) and around heavy pipes, all of which could potentially roll over an employee's feet. Safety shoes or boots with puncture protection would be required where sharp objects such as nails, wire, tacks, screws, large staples, scrap metal etc., could be stepped on by employees causing an injury.

Some occupations (not a complete list) for which foot protection should be considered are: shipping and receiving clerks, stock clerks, carpenters, electricians, machinists, mechanics and repairers, plumbers and pipe fitters, structural metal workers, assemblers, drywall installers and lathers, packers, wrappers, craters, punch and stamping press operators, sawyers, welders, laborers, freight handlers, gardeners and groundskeepers, timber cutting and logging workers, stock handlers and warehouse laborers.

9. *Selection guidelines for head protection.* All head protection (hardhats) is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important. Class A helmets, in addition to impact and penetration resistance, provide electrical protection from low-voltage conductors (they are proof tested to 2,200 volts). Class B helmets, in addition to impact and penetration resistance, provide electrical protection from high-voltage conductors (they are proof tested to 20,000 volts). Class C helmets provide only impact and penetration resistance (they are usually made of aluminum which conducts electricity), and should not be used around electrical hazards.

Where falling object hazards are present, head protection must be worn. Some examples include: working below other workers who are using tools and materials which could fall; working around or under conveyor belts which are carrying parts or materials; working below machinery or processes which might cause material or objects to fall; and working on exposed energized conductors.

Some occupations (not a complete list) for which head protection should be considered are: carpenters, electricians, linemen, mechanics and repairers, plumbers and pipefitters, assemblers, packers, wrappers, sawyers, welders, laborers, freight handlers, timber cutting and logging, stock handlers, and warehouse laborers.

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federal register

Wednesday
August 16, 1989

Part IV

Environmental Protection Agency

40 CFR Part 300

National Priorities for Uncontrolled Hazardous Waste Sites; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 300

[FRL-3630-5]

National Priorities List for Uncontrolled Hazardous Waste Sites

AGENCY: Environmental Protection Agency.

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency ("EPA") is proposing an update to the National Priorities List ("NPL"). The NPL is Appendix B to the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), which was promulgated on July 16, 1982, pursuant to section 105 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). CERCLA has since been amended by the Superfund Amendments and Reauthorization Act of 1986 ("SARA") and is implemented by Executive Order 12580 (52 FR 2923, January 29, 1987). CERCLA requires that that NCP include a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States, and that the list be revised at least annually. The NPL, initially promulgated on September 8, 1983 (48 FR 40658), constitutes this list.

This update proposes to add two new sites to the NPL, the Radium Chemical Company Site, in Woodside, Queens, New York, and the Forest Glen Mobile Home Subdivision Site in Niagara Falls, New York. Both are proposed for the NPL on the basis of § 300.66(b)(4) of the NCP (50 FR 37624, September 16, 1985). Section 300.66(b)(4) provides that, in addition to those releases identified by their Hazard Ranking System (HRS) scores as candidates for the NPL, EPA may identify for inclusion on the NPL any other release that the Agency determines is a significant threat to public health, welfare or the environment. This notice provides the public with an opportunity to comment on placing the Radium Chemical Company Site and the Forest Glen Mobile Home Subdivision Site on the NPL.

This proposed rule brings the number of proposed NPL sites to 337, 74 of them in the Federal section; 889 sites are on the final NPL, 41 of them in the Federal section. Final and proposed sites now total 1,226.

DATE: Comments must be submitted on or before September 15, 1989.

ADDRESSES: Comments may be mailed, in triplicate, to Larry Reed, Acting Director, Hazardous Site Evaluation Division (Attn: NPL Staff), Office of Emergency and Remedial Response (OS-230), U.S. Environmental Protection Agency, 401 M Street, SW., Washington DC 20460. Addresses for the Headquarters and Region 2 dockets are provided below. For further details on what these dockets contain, see the Public Comment Section, Section I, of the **SUPPLEMENTARY INFORMATION** portion of this preamble.

Tina Maragousis, Headquarters, U.S. EPA CERCLA Docket Office, Waterside Mall, 401 M Street, SW., Washington, DC 20460, 202/382-3046.

U.S. EPA, Region 2, Document Control Center Superfund Docket, 26 Federal Plaza, 7th Floor, Room 740, New York, NY 10278, Latchmin Serrano, 212/264-5540, Ophelia Brown, 212/264-1154.

FOR FURTHER INFORMATION CONTACT: Martha Otto, Hazardous Site Evaluation Division, Office of Emergency and Remedial Response (OS-230), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC, 20460, or the Superfund Hotline, Phone (800) 424-9346 (382-3000 in the Washington, DC, metropolitan area).

SUPPLEMENTARY INFORMATION:

Table of Contents:

I. Introduction

Background

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. 9601-9657 ("CERCLA" or "the Act") in response to the dangers of uncontrolled or abandoned hazardous waste sites. CERCLA was amended on October 17, 1986, by the Superfund Amendments and Reauthorization Act ("SARA"), Public Law 99-499, stat. 1613 *et seq.* To implement CERCLA, the Environmental Protection Agency ("EPA" or "the Agency") promulgated the revised National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), 40 CFR part 300, on July 16, 1982 (47 FR 31180), pursuant to CERCLA section 105 and Executive Order 12316 (46 FR 42237, August 20, 1981). The NCP, further revised by EPA on September 16, 1985 (50 FR 37624), and November 20, 1985 (50 FR 47912), sets forth the guidelines and procedures needed to respond under CERCLA to releases and threatened releases of hazardous substances, pollutants, or contaminants. On December 21, 1988 (53 FR 51394), EPA proposed revisions to the NCP in response to SARA.

Section 105(a)(8)(A) of CERCLA, as amended by SARA, requires that the NCP include "criteria for determining priorities among releases or threatened releases throughout the United States for the purpose of taking remedial action and, to the extent practicable, take into account the potential urgency of such action for the purpose of taking removal action." Removal action involves cleanup or other actions that are taken in response to emergency conditions or on a short-term or temporary basis (CERCLA) section 101(23)). Remedial action tends to be long-term in nature and involves response actions that are consistent with a permanent remedy for a release (CERCLA section 101(24)). Criteria for determining priorities for possible remedial actions financed by the Trust Fund established under CERCLA are included in the Hazard Ranking Systems ("HRS"), which EPA promulgated as Appendix A of the NCP (47 FR 31219, July 16, 1982). On December 23, 1988 (53 FR 51962), EPA proposed revisions to the HRS in response to CERCLA section 105(c), added by SARA.

In addition to the applications of the HRS, there are two other mechanisms by which EPA prioritizes sites for the purpose of taking remedial action. Under CERCLA section 105(a)(8)(B) each State may designate a single site as its top priority, regardless of the HRS score. Under the third mechanism, included in the NCP at 40 CFR 300.66(b)(4), the Agency may address sites as which the Agency for Toxic Substances and Disease Registry (ATSDR) recommends dissociation of individuals from the release, at which EPA determines that the release poses a significant public health threat, and for which EPA anticipates that it would be more cost effective to use remedial rather than removal authorities for cleanup. The three mechanisms are described in more detail in the NPL Update Process section, Section III, of the Supplementary Information portion of this preamble.

Based on these criteria, and pursuant to section 105(a)(8)(B) of CERCLA, as amended by SARA, EPA prepared a list of national priorities among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States. The list, which is Appendix B of the NCP, is the National Priorities List ("NPL"). CERCLA section 105(a)(8)(B) also requires that the NPL be revised at

least annually. A site can undergo CERCLA-financed remedial action only after it is placed on the NPL, as provided in the NCP at 40 CFR 300.66(c)(2) and 300.68(a).

An original NPL of 406 sites was promulgated on September 8, 1983 (48 FR 40658). The NPL has been expanded since then, most recently on March 31, 1989 (54 FR 13296). The Agency also has published a number of proposed rulemakings to add sites to the NPL, most recently Update #9 on July 14, 1989 (54 FR 29820).

EPA may delete sites from the NPL where no further response is appropriate, as explained in the NCP at 40 CFR 300.66(c)(7). To date, the Agency has deleted 27 sites from the final NPL, most recently on May 31, 1989 (54 FR 23212), when Voortman Farm, Upper Saucon Township, Pennsylvania, was deleted.

Pursuant to the NCP at 40 CFR 300.66(b)(4), this notice proposes to add two sites to the NPL. Adding these two sites to the 335 sites previously proposed brings the total number of proposed sites to 337. The final NPL contains 889 sites, for a total of 1,226 final and proposed sites.

EPA may include on the NPL sites at which there are or have been releases or threatened releases of hazardous substances, pollutants, or contaminants. The discussion below may refer to "releases or threatened releases" simply as "releases," "facilities," or "sites."

Public Comment Period

This **Federal Register** notice opens the formal 30-day comment period for this NPL Update. Comments may be mailed to Larry Reed, Acting Director, Hazardous Site Evaluation Division (Attn: NPL staff), Office of Emergency and Remedial Response (OS–230), U.S. Environmental Protection Agency, 401 M Street, SW., Washington, DC 20460.

The Headquarters and Region 2 public dockets for the NPL (see **ADDRESSES** portion of this notice) contain documents relating to the scoring of these proposed sites. The dockets are available for viewing, by appointment only, after the appearance of this notice. The hours of operation for the Headquarters docket are from 9:00 a.m. to 4:00 p.m., Monday through Friday excluding Federal holidays. The hours of operation for the Region 2 docket are from 8:00 a.m. to 5:00 p.m., Monday through Friday excluding Federal holidays.

The Headquarters docket for the two sites proposed in this NPL Update contain HRS score sheets, a Documentation Record describing the information used to compute the score, a list of documents referenced in the Documentation Record, the public health advisory issued by the Agency for Toxic Substances and Disease Registry, and EPA memoranda supporting the findings that the release poses a significant threat to public health and that it would be more cost-effective to use remedial rather than removal authorities at the sites.

The Regional docket includes all information available in the Headquarters docket, as well as the actual reference documents, which contain the data EPA relied upon in calculating or evaluating the HRS score for these sites. These reference documents are available only in the Region 2 docket.

An informal written request, rather than a formal request, should be the ordinary procedure for obtaining copies of any of these documents.

EPA considers all comments received during the formal comment period. During the comment period, comments are available to the public only in the Headquarters docket. A complete set of comments will be available for viewing in the Regional docket approximately one week after the formal comment period closes. Comments received after the comment period closes will be available in the Headquarters docket and in the Regional Office docket on an "as received" basis. An informal written request, rather than a formal request, should be the ordinary procedure for obtaining copies of any comments. After considering the relevant comments received during the comment period, EPA will add these sites to the NPL if they continue to meet requirements set out in the NCP. EPA will read all comments received on these sites, including late comments. In past rules, EPA responded even to late comments. However, given the need to make final decisions on all currently proposed sites prior to the date that the revised HRS takes effect, EPA will not be able to respond to all late comments received for sites in this rule. However, the Agency has routinely responded to late comments that result from EPA correspondence that provided commenters with more recent data or requested that the commenters be more specific in their comments.

Early Comments

In certain instances, interested parties have written to EPA concerning sites that were not, at that time, proposed to the NPL. Because such submissions were not set to EPA during a formal comment period on the sites of concern, they are not considered to be formal comments. If those sites are later proposed to the NPL, parties should review their earlier concerns and, if they still consider them appropriate, resubmit those concerns for consideration during the formal comment period. Site-specific correspondence received prior to formal proposal generally will not be included in the docket.

Comments Lacking Specificity

EPA anticipates that some comments will consist of or include additional studies or supporting documentation, e.g., hydrogeology reports, lab data, and previous site studies. Where commenters do not indicate what specific scoring issues the supporting documentation addresses, or what they want EPA to evaluate in the supporting documentation, EPA can only attempt to respond to such documents as best it can. Any commenter submitting additional documentation should indicate what specific points in that documentation that it would like for EPA to consider. As the U.S. Court of Appeals for the District of Columbia Circuit noted in *Northside Sanitary Landfill* v. *Thomas & EPA*, 849 F. 2d 1516, 1520 (D.C. Cir. 1988) *cert. denied*, 109 S. Ct. 1528 (1989), during notice-and-comment rulemaking a commenter must explain with some specificity how any documents submitted are relevant to issues in the rulemaking.

II. Purpose and Implementation of the NPL

Purpose

The primary purpose of the NPL is stated in the legislative history of CERCLA (Report of the Committee on Environment and Public Works, Senate Report No. 96–848, 96th Cong., 2d Sess. 60 (1980)):

> The priority lists serve primarily informational purposes, identifying for the States and the public those facilities and sites or other releases which appear to warrant remedial actions. Inclusion of a facility or site on the list does not in itself reflect a judgment of the activities of its owner or operator, it does not require those persons to undertake any action, nor does it assign liability to any person. Subsequent government action in the form of remedial actions or enforcement action will be necessary in order to do so, and these actions will be attended by all appropriate procedural safeguards.

The purpose of the NPL, therefore, is primarily to serve as an informational and management tool. The identification of a site for the NPL is intended primarily to guide EPA in determining which sites warrant further investigation to assess the nature and extent of the public health and environmental risks associated with the site and to

determine what CERCLA-financed remedial action(s), if any, may be appropriate. The NPL also serves to notify the public of sites that EPA believes warrant further investigation.

Implementation

EPA has limited, by regulation, the expenditure of Trust Fund monies for remedial actions to those sites that have been placed on the final NPL, as outlined in the NCP at 40 CFR 300.66(c)(2) and 300.68(a). However, EPA may take enforcement actions under CERCLA or other applicable statutes against responsible parties regardless of whether the site is on the NPL, although, as a practical matter, the focus of EPA's CERCLA enforcement actions has been and will continue to be on NPL sites. Similarly, in the case of CERCLA removal actions, EPA has the authority to act at any site, whether listed or not, that meets the criteria of the NCP at 40 CFR 300.65–67.

EPA's policy is to pursue cleanup of NPL sites using the appropriate response and/or enforcement actions available to the Agency, including authorities other than CERCLA. Listing a site will serve as notice to any potentially responsible party that the Agency may initiate CERCLA-financed remedial action. The Agency will decide on a site-by-site basis whether to take enforcement or other action under CERCLA or other authorities, proceed directly with CERCLA-financed response actions and seek to recover response costs after cleanup, or do both. To the extent feasible, once sites are on the NPL, EPA will determine high-priority candidates for Superfund-finance response action and/or enforcement action through both State and Federal initiatives. These determinations will take into account which approach is more likely to most expeditiously accomplish cleanup of the site while using CERCLA's limited resources as efficiently as possible.

Remedial response actions will not necessarily be funded in the same order as a site's ranking on the NPL. Most sites are listed in the order of their HRS scores, and the Agency has recognized that the information collected to develop HRS scores is not sufficient in itself to determine either the extent of contamination or the appropriate response for a particular site. EPA relies on further, more detailed studies in the remedial investigation/feasibility study (RI/FS) to address these concerns.

The RI/FS determines the nature and extent of the threat presented by the contamination (40 CFR 300.68(d)). It also takes into account the amount of contaminants in the environment, the risk to affected populations and environment, the cost to correct problems at the site, and the response actions that have been taken by potentially responsible parties or others. Decisions on the type and extent of action to be taken at these sites are made in accordance with the criteria contained in Subpart F of the NCP. After conducting these additional studies, EPA may conclude that it is not desirable to initiate a CERCLA remedial action at some sites on the NPL because of more pressing needs at other sites, or because a private party cleanup is already underway pursuant to an enforcement action. Given the limited resources available in the Trust Fund, the Agency must carefully balance the relative needs for response at the numerous sites it has studied. It is also possible that EPA will conclude after further analysis that the site does not warrant remedial action.

III. NPL Update Process

There are three mechanisms for placing sites on the NPL. The principal mechanism is the application of the HRS. The HRS serves as a screening device to evaluate the relative potential of uncontrolled hazardous substances to cause human health or safety problems, or ecological or environmental damage. The HRS score represents an estimate of the relative "probability and magnitude of harm to the human population or sensitive environment from exposure to hazardous substances as a result of the contamination of ground water, surface water, or air (47 FR 31180, July 16, 1982). Those sites that score 28.50 or greater on the HRS are eligible for the NPL.

Under the second mechanism for adding sites to the NPL, each State may designate a single site as its top priority, regardless of the HRS score. This mechanism is provided by section 105(a)(8)(B) of CERCLA, as amended by SARA, which requires that, to the extent practicable, the NPL include within the 100 highest priorities, one facility designated by each State representing the greatest danger to public health, welfare, or the environment among known facilities in the State.

The third mechanism for listing, included in the NCP at 40 CFR 300.66(b)(4) (50 FR 37624–28, September 16, 1985), allows certain sites with HRS scores below 28.50 to be eligible for the NPL if all of the following occur:

- The Agency for Toxic Substances and Disease Registry (ATSDR) of the U.S. Department of Health and Human Services has issued a health advisory that recommends dissocation of individuals from the release.
- EPA determines that the release poses a significant threat to public health.
- EPA anticipates that it will be more cost-effective to use its remedial authority than to use its removal authority to respond to the release.

This third mechanism was added to the NCP by rulemaking, during which the Agency explained that there are certain types of sites for which the risk may not be fully reflected in the HRS score. For example, direct contact scores are not included in calculating the total HRS score, and thus some sites involving direct contact to residents may pose a serious threat but not receive a sufficiently high score to qualify for the NPL. Similarly, where a small number of people are exposed to a hazardous substance, the site may fail to qualify for listing due to the low targets score. After accepting and responding to public comment, EPA issued a regulation that would allow the Agency to list sites where the ATSDR issues a health advisory, EPA determines that the site poses a significant health threat, and the Agency finds that it would be more cost-effective to use remedial rather than removal authority to respond to the release (50 FR at 37624–25).

The two sites proposed for the NPL today are proposed under the third mechanism for adding sites to the NPL. The specific application of the criteria for this mechanism to the Radium Chemical Company Site and the Forest Glen Mobile Home Subdivision Site is discussed in Section IV of this notice.

States have the primary responsibility for identifying non-Federal sites, computing HRS scores, and submitting candidate sites to the EPA Regional Offices. EPA Regional Offices conduct a quality control review of the States' candidate sites, and may assist in investigating, sampling, monitoring, and scoring sites. Regional Offices also may consider candidate sites in addition to those submitted by States. EPA Headquarters conducts further quality assurance audits to ensure accuracy and consistency among the various EPA and State offices participating in the scoring. The Agency then proposes the sites that meet one of the three criteria for listing (and EPA's listing requirements) and solicits public comment on the proposal. Based on these comments and further review by EPA, the Agency determines final HRS scores and places those sites that still qualify on the final NPL.

IV. Contents of This Proposed NPL Update

The Radium Chemical Company (RCC) Site, in Woodside, Queens

Borough, New York City, New York and the Forest Glen Mobile Home Subdivision Site in Niagara Falls, New York are being proposed for the NPL on the basis of section 300.66(b)(4) of the NCP (50 FR 37624, September 16, 1985). Section 300.66(b)(4) provides that, in addition to those releases identified by their HRS scores as candidates for the NPL, EPA may identify for the NPL any other release that the Agency determines is a significant threat to public health, welfare, or the environment. EPA may make such a determination when ATSDR has issued a health advisory as a consequence of the release.

Radium Chemical Company

The site consists of a one-story brick building located in a densely populated residential and commercial area of New York City. Established in Manhattan in 1913, RCC transferred operations to Woodside in the late 1950s. A separate manufacturing company, which is unrelated to the RCC operation, occupies part of the same building and shares a common wall with RCC.

Initially, RCC produced luminous paint for watch dials and instruments. Later, it manufactured radium-containing needles and other sealed medical devices, largely for cancer therapy.

In 1983, the State suspended RCC's operating license because of various disposal and safety infractions, and in 1986, the company was denied permission to resume operations. In 1987, the State ordered RCC to remove the radium and decontaminate the building. In 1987, the facility was abandoned, leaving a large number of radium-containing sealed containers at the site, some of which were suspected of releasing radium and radon gas. The amount of radium–226 at the site was estimated to be 110 curies. Also on the site were hundreds of containers of laboratory chemicals, many of which were reactive, corrosive, flammable, and/or potentially shock sensitive.

The State formally requested that EPA secure the plant and remove the radioactive materials. In July 1988, EPA undertook a limited removal action using CERCLA emergency funds. EPA provided 24–hour security and took measures to stabilize the site. In April 1989, EPA began to remove the radioactive and hazardous materials and transport them to approved disposal facilities.

Elevated levels of radiation have been measured inside certain areas of the building. On February 10, 1989, ATSDR issued an advisory warning that the RCC Site poses a significant threat to public health because of the potential for the release of radium–226.

The advisory discusses two concerns. One is that an intruder might enter the RCC Site from the adjoining manufacturing facility (as has happened in the past) and remove radioactive materials. The second concern relates to the potential for release of radioactive materials to the ambient environment as a result of physical disturbance to the building. The RCC building is located approximately 15 feet from the Brooklyn-Queens Expressway, a major highway used extensively for commercial trucking. The U.S. Department of Energy's Lawrence Livermore Laboratory has modelled scenarios involving a gasoline tanker accident on the Brooklyn-Queens Expressway in the vicinity of the site, and has determined that the estimated 27,000 people who live within 1 mile of the site could be exposed to radiation if any were released in the event of a major accident.

As a result of these concerns, ATSDR has recommended dissociation of the radioactive materials from individuals in the community. (*See* "Public Health Advisory for Radium Chemical Company, Woodside, Queens, New York," issued by the ATSDR, February 10, 1989. This advisory is included in the Superfund docket for this proposed rule.)

EPA's assessment is that the site poses a significant threat to human health and the environment, and EPA anticipates that it will be more cost-effective to use remedial authority than to use removal authority to respond to the site. This finding is set out in a memorandum dated March 17, 1989, from Timothy Fields, Jr., Director, Emergency Response Division to Larry Reed, Acting Director of the Hazardous Site Evaluation Division, both in the Office of Solid Waste and Emergency Response. This memorandum is available in the Superfund docket for this proposed rule. Based on this information, and the references in support of the proposal, EPA believes that the Radium Chemical Site is appropriate for the NPL pursuant to 40 CFR 300.66(b)(4).

Forest Glen Mobile Home Subdivision Site

The Forest Glen Mobile Home Subdivision Site is located in Niagara Falls, Niagara County, New York. The 21–acre site consists of 52 mobile homes and two permanent residences. Approximately 150 residents live in the area. Surface and subsurface soils at the site are contaminated with a variety of chemicals.

Prior to the 1960's the area was wooded wetland. During the 1960's the area was cleared, and in the early 1970's, the area was filled with unspecified materials. The area was developed into a mobile home community in the 1970's. Analysis of soil samples collected from the site in 1988 and 1989 identified polyaromatic hydrocarbons, aniline, phenothiazine, benzothiazine, and mercaptobenzothiazole.

On July 21, 1989, ATSDR issued a preliminary Health Assessment, and on July 31, 1989 ATSDR issued a final Health Advisory recommending the dissociation of the residents of the community from the wastes and contaminated soil at the site. The advisory was based on the concern that residents of the community may be exposed to hazardous substances as a result of dermal contact with the soil (i.e. gardening, playing), through ingestion of produce growth in the soil, or as a result of inhalation of concentrated vapors collected in poorly ventilated, confined areas such as the space under the skirt of the mobile homes. In addition, the advisory expressed concern regarding the physical stability of the disposal area beneath the site, and the potential for contamination of the public water supply.

(*See* "Public Health Advisory for the Forest Glen Mobile Home Park, Niagara Falls, New York," issued by the ATSDR, on July 31, 1989. This document is included in the Superfund docket for this proposed rule.)

EPA's assessment is that the site poses a significant threat to human health and the environment, and EPA anticipates that it will be more cost-effective to use remedial authority than to use removal authority to respond to the site. This finding is set out in a memorandum dated August 3, 1989, from Stephen Luftig, Director of the Region II Emergency and Remedial Response Division to Larry Reed, Acting Director of the Hazardous Site Evaluation Division. This memorandum is available in the Superfund docket for this proposed rule.

Based on this information, and the references in support of the proposal, EPA believes that the Forest Glen Mobile Home Subdivision Site is appropriate for listing on the NPL pursuant to 40 CFR 300.66(b)(4).

Table 1 following this preamble lists the two sites proposed for the NPL in this update. The entry contains the names and locations of the sites.

Each proposed site is placed by HRS score in a group corresponding to groups

of 50 sites presented within the final NPL. For example, a site in Group 8 of the proposed update has a score that falls within the range of scores covered by the eighth group of 50 sites on the final NPL. The NPL is arranged by HRS scores and is presented in groups of 50 to emphasize that minor differences in scores do not necessarily represent significantly different levels of risk. Since these two sites have proposed HRS scores of less than 28.50, they are included in the group of sites with the lowest HRS scores.

V. Regulatory Impact Analysis

The costs of cleanup actions that may be taken at sites are not directly attributable to listing on the NPL, as explained below. Therefore, the Agency has determined that this rulemaking is not a "major" regulation under Executive Order 12291. EPA has conducted a preliminary analysis of the economic implications of today's proposal to add two new sites, and finds that the kinds of economic effects associated with this proposed revision are generally similar to those identified in the regulatory impact analysis (RIA) prepared in 1982 for revisions to the NCP pursuant to section 105 of CERCLA (47 FR 31180, July 16, 1982) and the economic analysis prepared when amendments to the NCP were proposed (50 FR 5882, February 12, 1985). This rule was submitted to the Office of Management and Budget for review as required by Executive Order 12291.

Costs

EPA has determined that this proposed rulemaking is not a "major" regulation under Executive Order 12291 because inclusion of a site on the NPL does not itself impose any costs. It does not establish that EPA necessarily will undertake remedial action, nor does it require any action by a private party or determine its liability for site response costs. Costs that arise out of site responses result from site-by-site decisions about what actions to take, not directly from the act of listing itself. Nonetheless, it is useful to consider the costs associated with responding to the sites included in this proposed rulemaking.

The major events that follow the proposed listing of a site on the NPL are a search for potentially responsible parties and a remedial investigation/feasibility study (RI/FS) to determine if remedial actions will be undertaken at a site. Design and construction of the selected remedial alternative follow completion of the RI/FS, and operation and maintenance (O&M) activities may continue after construction has been completed.

EPA initially bears costs associated with responsible party searches. Responsible parties may bear some or all the costs of the RI/FS, remedial design and construction, and O&M, or EPA and the States may share costs.

The State cost share for site cleanup activities has been amended by section 104 of SARA. For privately-owned sites, as well as at publicly-owned but not publicly-operated sites, EPA will pay for 100% of the costs of the RI/FS and remedial planning, and 90% of the costs associated with remedial action. The State will be responsible for 10% of the remedial action. For publicly-operated sites, the State cost share is at least 50% of all response costs at the site, including the RI/FS and remedial design and construction of the remedial action selected. After the remedy is built, costs fall into two categories:

- For restoration of ground water and surface water, EPA will share in startup costs according to the criteria in the previous paragraph for 10 years or until a sufficient level of protectiveness is achieved before the end of 10 years.
- For other cleanups, EPA will share for up to 1 year the cost of that portion of response needed to assure that a remedy is operational and functional. After that, the State assumes full responsibilities for O&M.

In previous NPL rulemakings, the Agency estimated the costs associated with these activities (RI/FS, remedial design, remedial action, and O&M) on an average per site and total cost basis. EPA will continue with this approach, using the most recent (1988) cost estimates available; these estimates are presented below. However, there is wide variation in costs for individual sites, depending on the amount, type, and extent of contamination. Additionally, EPA is unable to predict what portions of the total costs responsible parties will bear, since the distribution of costs depends on the extent of voluntary and negotiated response and the success of any cost-recovery actions.

Cost category	Average total cost per site [1]
RI/FS	1,100,000
Remedial Design	750,000
Remedial Action	[2] 13,500,000
Net present value of O&M [3]	[2] 3,770,000

[1] 1988 U.S. Dollars.
[2] Includes State cost-share.
[3] Assumes cost of O&M over 30 years, $400,000 for the first year and 10% discount rate.

Source: Office of Program Management, Office of Emergency and Remedial Response, U.S. EPA.

Costs to States associated with today's proposed rule arise from the required State cost-share of: (1) 10% of remedial actions and 10% of first-year O&M costs at privately-owned sites and sites that are publicly-owned but not publicly-operated; and (2) at least 50% of the remedial planning (RI/FS and remedial design), remedial action, and first-year O&M costs at publicly-operated sites. The State will assume the cost for O&M after EPA's period of participation. The Radium Chemical Company Site and the Forest Glen Mobile Home Subdivision Site are both privately-owned. Therefore, using the budget projections presented above, the cost to the State of undertaking Federal remedial planning and actions, but excluding O&M costs, would be approximately $2.5 million. State O&M costs cannot be accurately determined because EPA, as noted above, will share O&M costs for up to 10 years for restoration of ground water and surface water, and it is not known if these sites will require this treatment and for how long. However, based on past experience, EPA believes a reasonable estimate is that it will share startup costs for up to 10 years at 25% of sites.

Proposing a hazardous waste site for the NPL does not itself cause firms responsible for the site to bear costs. Nonetheless, a listing may induce firms to clean up the sites voluntarily, or it may act as a potential trigger for subsequent enforcement or cost-recovery actions. Such actions may impose costs on firms, but the decisions to take such actions are discretionary and made on a case-by-case basis. Consequently, precise estimates of these effects cannot be made. EPA does not believe that every site will be cleaned up by a responsible party. EPA cannot project at this time which firms or industry sectors will bear specific portions of the response costs, but the Agency considers: the volume and nature of the waste at the sites; the strength of the evidence linking the wastes at the site to the parties; the parties' ability to pay; and other factors when deciding whether and how to proceed against the parties.

Economy-wide effects of this proposed amendment to the NCP are aggregations of effects on firms and State and local governments. Although effects could be felt by some individual firms and States, the total impact of this proposal on output, prices, and employment is expected to be negligible at the national level, as was the case in the 1982 RIA.

Benefits

The benefits associated with today's proposal to place the Radium Chemical Company Site and the Forest Glen Mobile Home Site on the NPL are increased health and environmental protection as a result of increased public awareness of potential hazards. In addition to the potential for more Federally-financed remedial actions, expansion of the NPL can accelerate privately-financed, voluntary cleanup efforts. Proposing sites as national priority targets also may give States increased support for funding responses at particular sites.

As a result of additional CERCLA remedies, there will be lower human exposure to high-risk chemicals, and higher-quality surface water, ground water, soil, and air. These benefits are expected to be significant, although difficult to estimate in advance of completing the RI/FS at this site.

VI. Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act of 1980 requires EPA to review the impacts of this action on small entities, or certify that the action will not have a significant impact on a substantial number of small entities. By small entities, the Act refers to small businesses, small government jurisdictions, and nonprofit organizations.

While this rule proposes revisions to the NCP, they are not typical regulatory changes since the revisions do not authomatically impose costs. Proposing sites on the NPL does not in itself require any action by any private party, nor does it determine the liability of any party for the cost of cleanup at the site. Further, no identifiable groups are affected as a whole. As a consequence, it is hard to predict impacts on any group. A site's proposed inclusion on the NPL could increase the likelihood that adverse impacts to responsible parties (in the form of cleanup costs) will occur, but EPA cannot identify the potentially affected business at this time nor estimate the number of small businesses that might be affected.

The Agency does expect that certain industries and firms within industries that have caused a proportionately high percentage of waste site problems could be significantly affected by CERCLA actions. However, EPA does not expect the impacts from the listing of these sites to have a significant economic impact on a substantial number of small businesses.

In any case, economic impacts would only occur through enforcement and cost-recovery actions, which are taken at EPA's discretion on a site-by-site basis. EPA considers many factors when determining what enforcement actions to take, including not only the firm's contribution to the problem, but also the firm's ability to pay.

The impacts (from cost recovery) on small governments and nonprofit organizations would be determined on a similar case-by-case basis.

List of Subjects in 40 CFR Part 300

Air pollution control, Chemicals, Hazardous materials, Intergovernmental relations, Natural resources, Oil pollution, Reporting and recordkeeping requirements, Superfund, Waste treatement and disposal, Water pollution control, Water supply.

Dated: August 10, 1989.

Robert L. Duprey,

Acting Assistant Administrator, Office of Solid Waste and Emergency Response.

PART 300—[AMENDED]

It is proposed to amend 40 CFR Part 300 as follows:

1. The authority citation for Part 300 continues to read as follows:

Authority: 42 U.S.C. 9605; 42 U.S.C. 9620; 33 U.S.C. 1321(c)(2); E.O. 11735 (38 FR 21243); E.O. 12580 (52 FR 2923).

Appendix B [Amended]

2. It is proposed to add the following two sites by group to the first table in Appendix B of Part 300:

NATIONAL PRIORITIES LIST PROPOSED UPDATE, AUGUST 1989

NPL GR [1]	EPA Reg	State	Site Name	City-County
17	02	NY	Radium Chemical Co.	Woodside.
17	02	NY	Forest Glen Mobile Home Subdivision.	Niagara Falls.

[1] Sites are placed in groups (Gr) corresponding to groups of 50 on the final NPL.
Number of Sites Proposed for listing: 2.

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